



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,783	06/27/2001	Frank Bahren	Westphal.6313	9614

7590 03/17/2005

Patrick J. O'Shea  
O'Shea, Getz & Kosakowski, P.C.  
1500 Main Street  
Suite 912  
Springfield, MA 01115

EXAMINER

CHANKONG, DOHM

ART UNIT

PAPER NUMBER

2152

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/892,783	<b>Applicant(s)</b> BAHREN ET AL.	
	<b>Examiner</b> Dohm Chankong	<b>Art Unit</b> 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7-14 and 16-25 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 7-14 and 16-25 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/10/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1> Applicant's amendment and remarks, dated 1.10.2005, have been received.

Claim 15 was cancelled. Claims 7-14 and 16-25 are presented for further examination.

### *Response to Arguments*

2> Applicant's arguments filed 1.10.2005 have been fully considered but they are not persuasive.

Applicant is arguing in substance that the primary reference, Ford, does not disclose the limitation of manipulating the first address of each device to derive a second address which identifies the device in a second network. In support of his arguments, Applicant asserts that there is no disclosure in Ford that "the network identifying portion to generate the host identifying portion" [page 7].

There seems to be a misunderstanding as to the correlation of the particulars of Ford's invention towards those of the present invention. Examiner will attempt to better delineate the rejection rationale.

Ford is directed towards automatic generation of an IP address for network devices, such as IP hosts that contain network interface cards. To generate the IP address, Ford discloses utilizing an Ethernet address found in the network interface card of the computer. After generating host identifying portion based on this Ethernet address, a fixed prefix is added to the host identifying portion to distinctly identify the newly generated address in a second network [Figures 5a, 5b | column 11 «lines 5-33»].

In this particular embodiment of Ford, the Ethernet address is analogous to Applicant's first address. As is well known in the art, the Ethernet address uniquely identifies the computer within the local area network (analogous to the first network) [Figure 5a | column 9 «lines 11-16»]. Ford's hashing (and subsequent appending of a prefix) of the Ethernet address is analogous to a mathematical formation algorithm. This newly generated address, which is analogous to the claimed second address, identifies the computer on a corporate-wide network (second network) [Figure 5b | column 10 «line 55» to column 11 «line 33»]. Therefore, Ford accounts for all the limitations disclosed in the independent claims.

#### *Claim Rejections - 35 USC § 102*

3> The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4> Claims 7, 9, 10, 12, 14-18 and 20 are rejected under 35 U.S.C § 102(e) as being anticipated by Ford et al, U.S Patent No. 6,101,499 ["Ford"].

5> As to claim 7, Ford discloses a first network which can be linked to a second network, the first network including a plurality of network devices linked with one

Art Unit: 2152

another and have an associated first address for unique identification in the first network [column 6 <lines 54-57> | column 9 «lines 11-16»], a method for generating a second address for each said device comprising:

manipulating the first address of each device in accordance with a mathematical formation algorithm to derive the second address which uniquely identifies each such device in the second network [Figures 5a, 5b | column 7 <lines 25-64> | column 9 <lines 4-9> | column 10 «line 55» to column 11 «line 33» where: Ford manipulates the Ethernet address of each device by hashing it to generate a second address that allows the computer to access the corporate network].

6> As to claim 9, Ford discloses the method of claim 7, wherein the prefix is chosen so that the second address is interpreted as a private address in accordance with the definition RFC 1918 [column 3 <lines 39-46>].

7> As to claim 10, Ford discloses the method of claim 9, wherein the first network is a private network and the second network is a public network [Figure 5C <item 126> | column 2 <lines 43-61> | column 3 <lines 39-46>].

8> As to claim 12, Ford discloses the method of claim 10, wherein the second network is the Internet [Figure 5C <item 126>].

9> As to claim 14, Ford discloses a first network that can be linked to a second network, the first network comprising coupled network devices each having an

Art Unit: 2152

associated first address that uniquely identifies each device in the first network

[column 6 <lines 54-57>],

wherein each device of the first network also has an associated second address that uniquely identifies each such device in the second network to which the first network is linked, wherein the second address is derived by manipulating the first address of each device in accordance with a mathematical formation algorithm [column 7 <lines 4-7 and 48-64> | column 8 «line 66» to column 9 «line 16» | column 9 <lines 62-63> where: Ford's generated IP address is equivalent in functionality to the associated second address claimed by Applicant. Ford's Ethernet address is comparable to the first address, and his hashing of the Ethernet address is analogous to the mathematical formation algorithm].

10> As to claim 16, Ford discloses the network of claim 14, wherein the mathematical formation algorithm comprises appending a fixed prefix [Figures 3A-3C | column 2 <lines 19-21> | column 3 <lines 39-46> | column 8 <lines 50-65>].

11> As to claim 17, Ford discloses the network of claim 14, wherein the prefix is chosen so that the second address is interpreted as a private address in accordance with the definition RFC 1918 [column 3 <lines 39-46>].

12> As to claim 18, Ford discloses the network of claim 17, wherein the first network is a private network and the second network is a public network [Figure 5C <item 126> | column 2 <lines 43-61> | column 3 <lines 39-46>].

13> As to claim 20, Ford discloses the network of claim 18, wherein the second network is the Internet [Figure 5C <item 126>].

*Claim Rejections - 35 USC § 103*

14> The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15> Claim 8 is rejected under 35 U.S.C § 103(a) as being unpatentable over Ford, in view of RFC 2462, "IPv6 Stateless Address Autoconfiguration" ["RFC 2462"].

16> Ford does not explicitly disclose the method wherein the mathematical formation algorithm comprises appending a fixed prefix to the first address.

17> In the same field of invention, RFC 2462 discloses a mathematical formation algorithm comprises appending a fixed prefix to the first address to generate a second address [page 16 (section 5.5) where: the RFC discloses generating a global address by appending a prefix to an interface identifier, which as defined by the RFC includes Ethernet addresses (page 5 – link-layer address, page 6 – interface identifier). The global address identifies the computer in an IPv6 network]. Ford also discloses

Art Unit: 2152

utilizing the Ethernet address, but teaches requiring hashing the Ethernet address because it was too large to fit into the IP address because of IPv4 constraints [column 9 «lines 4-9»]. However, RFC discloses in the newer IPv6 network, because of the larger address field, such hashing is not required. The prefix is simply appended to the Ethernet address, without the hashing required by Ford. Therefore, it would have been obvious to one of ordinary skill in the art to utilize RFC 2462's address generation functionality into Ford to eliminate the hashing of the Ethernet address. One would have been motivated to perform such an implementation to enable Ford's address generation system to be compatible with IPv6 networks as well as to speed up the address generation process because hashing is no longer required.

18> Claims 11 and 19 are rejected under 35 U.S.C § 103(a) as being unpatentable over Ford, in view of the MOST Specification Framework Rev 1.1 ["MOST spec"].

19> As to claim 11, Ford does disclose that the first network is a local area network (LAN) [column 6 <lines 34-37>] but does not specifically disclose that first network is a MOST network.

20> The MOST spec teaches a LAN that is preferably implemented as a MOST network [sections 3 and 8]. It would have been obvious to one of ordinary skill in the art to implement Ford's LAN as a MOST network as disclosed by the MOST spec, so Ford's network can obtain the stated advantages of utilizing a higher performance optical fiber network is more robust and faster than a typical network.



21> As to claim 19, as it is merely a network that implements the step of the method of claim 11, it does not teach or further define over the limitations of claim 11. Therefore, claim 19 is also rejected for the same reasons as set forth in claim 11, supra.

22> Claims 13 and 21 are rejected under 35 U.S.C § 103(a) as being unpatentable over Ford and the MOST spec, in further view of Inoue et al, U.S Patent No. 6,163,843 [“Inoue”].

23> As to claim 13, Ford does not disclose a method wherein the first network includes a firewall as an interface between the first network and the second network.

24> Inoue discloses a method wherein a first network includes a firewall as an interface between the first network and a second network [Figure 2 <item 1b, 4b> | column 2 <lines 14-20>]. It would have been obvious to one of ordinary skill in the art to include a firewall in Ford’s first network to securely allow the transmission of messages outside of the first network.

25> As to claim 21, as it is merely a claim to a network that implements the steps of the methods of claim 13, they do not teach or further define over the limitations of claim 13. Therefore, they are also rejected for the same reasons as set forth in claim 13, supra.

Art Unit: 2152

26> Claim 22 is rejected under 35 U.S.C § 103(a) as being unpatentable over the MOST spec, in view of Ford.

27> The MOST spec discloses a multimedia system for implementation in a vehicle [section 2.1] comprising:

a plurality of multimedia devices communicably coupled through a communication link to form a private MOST network, wherein each of said plurality of multimedia has associated therewith a first address that uniquely identifies each said multimedia device in the MOST network [sections 2.4, 2.5, 3.II.1, 4.3.3.1].

The MOST spec does not explicitly disclose that each of said plurality of multimedia devices has associated therewith a second address that uniquely identifies each said multimedia device in the public network, wherein the second address is derived based on the first address.

28> Ford discloses a plurality of devices that has associated therewith a second address that uniquely identifies each said multimedia device in the public network, wherein the second address is derived based on the first address [column 3 <lines 39-46 and 47-55> | column 6 <lines 54-60> where: the Ethernet address is equivalent to the first address, and the generated address is equivalent to the second address]. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include Ford's second address generation functionality into the MOST spec's multimedia network to simplify network connection, administration, and connecting

Art Unit: 2152

to a network outside the private MOST network for MOST spec's multimedia devices [Ford – abstract].

29> Claims 23-25 are rejected under 35 U.S.C § 103(a) as being unpatentable over the MOST spec and Ford, in further view of Inoue.

30> As to claim 23, the MOST spec does not disclose a multimedia system comprising a firewall residing on the MOST network for linking the MOST network to a public network.

31> Inoue discloses a method wherein a multimedia system comprising a firewall residing on a mobile network for linking the mobile network to a public network [Figure 2 <items 1b, 4b, 6> | column 2 <lines 14-20>]. It would have been obvious to one of ordinary skill in the art to implement Inoue's network functionality that comprises a firewall into the MOST spec's MOST network to inspect packets as they are leaving the MOST spec's MOST network and to securely allow the transmission of messages outside of the MOST network.

32> As to claim 24, the MOST spec does not disclose a media system wherein the second address is derived by manipulating the (first) second address of each device in accordance with a mathematical formation algorithm compliant with definition RFC 1918.

Art Unit: 2152

33> Ford teaches a media system, wherein the second address is derived by manipulating the first address of each device in accordance with a mathematical formation algorithm compliant with definition RFC 1918 [column 3 «lines 39-46 and 56-63» | column 8 «line 66» to column 9 «line 16» where: the hashing of the device's Ethernet address is comparable to a mathematical formation algorithm; Ford's Ethernet address is analogous to the first address; and the prefix is selected compliant with RFC 1918]. It would have been obvious to one of ordinary skill in the art to implement Ford's mathematical algorithm in the MOST spec to generate an IP address for the MOST spec's multimedia devices to access a network outside of its MOST network. One would have been further motivated to perform this implementation as the MOST spec suggests that his multimedia devices need access to the Internet [section 2.5 - see diagram "MOST Open Model' with TCP/IP network protocol embedded in one of the devices], and Ford's method allows simplified network connections for network devices.

34> As to claim 25, the MOST spec discloses the multimedia system of claim 23 wherein the public network is the Internet [section 2.5 - see diagram "MOST Open Model' with TCP/IP network protocol embedded in one of the devices].

### ***Conclusion***

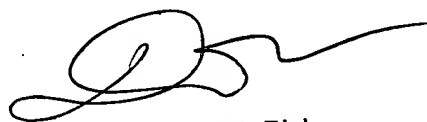
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942. The examiner can normally be reached on 8:30AM - 5:30PM.

Art Unit: 2152

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DC



Dung C. Dinh  
Primary Examiner